| Ref<br># | Hits | Search Query  | DBs      | Default<br>Operator | Plurals | Time Stamp       |
|----------|------|---|----------|---------------------|---------|------------------|
| L1       | 62   | (((thermal adj3 pole adj2 tip) or<br>(pole adj2 tip)) same heat\$3) same<br>(writ\$3 or read\$3 or record\$3 or<br>reproduc\$3)   | USPAT    | OR                  | ON      | 2004/12/09 15:38 |
| L2       | 53   | ("360"/\$.ccls.) and 1  | USPAT    | OR                  | ON      | 2004/12/09 15:40 |
| L3       | 1    | ("219"/\$.ccls.) and 1  | USPAT    | OR                  | ON      | 2004/12/09 15:40 |
| L4       | 15   | (((thermal adj3 pole adj2 tip) or<br>(pole adj2 tip)) same heat\$3) same<br>(prior or before or preced\$3 or<br>previous\$3) same (writ\$3 or<br>read\$3 or record\$3 or reproduc\$3) | USPAT    | OR                  | ON      | 2004/12/09 15:43 |
| L5       | 14   | ("360"/\$.ccls.) and 4  | USPAT    | OR                  | ON      | 2004/12/09 15:40 |
| L6       | 0    | ("219"/\$.ccls.) and 4  | USPAT    | OR                  | ON      | 2004/12/09 15:40 |
| L7       | 6    | (((thermal adj3 pole adj2 tip) or<br>(pole adj2 tip)) same heat\$3) same<br>(prior or before or preced\$3 or<br>previous\$3) same (writ\$3 or<br>read\$3 or record\$3 or reproduc\$3) | US-PGPUB | OR                  | ON      | 2004/12/09 15:41 |
| L8       | 0    | (((thermal adj3 pole adj2 tip) or<br>(pole adj2 tip)) same heat\$3) same<br>(prior or before or preced\$3 or<br>previous\$3) same (writ\$3 or<br>read\$3 or record\$3 or reproduc\$3) | EPO      | OR                  | ON ,    | 2004/12/09 15:41 |
| L9       | . 0  | (((thermal adj3 pole adj2 tip) or<br>(pole adj2 tip)) same heat\$3) same<br>(prior or before or preced\$3 or<br>previous\$3) same (writ\$3 or<br>read\$3 or record\$3 or reproduc\$3) | JPO      | OR                  | ON      | 2004/12/09 15:41 |
| L10      | 0    | (((thermal adj3 pole adj2 tip) or<br>(pole adj2 tip)) same heat\$3) same<br>(prior or before or preced\$3 or<br>previous\$3) same (writ\$3 or<br>read\$3 or record\$3 or reproduc\$3) | DERWENT  | OR                  | ON      | 2004/12/09 15:41 |
| L11      | 1    | (((thermal adj3 pole adj2 tip) or<br>(pole adj2 tip)) same heat\$3) same<br>(prior or before or preced\$3 or<br>previous\$3) same (writ\$3 or<br>read\$3 or record\$3 or reproduc\$3) | IBM_TDB  | OR                  | ON      | 2004/12/09 15:41 |

| Ref<br># | Hits | Search Query  | DBs      | Default<br>Operator | Plurals | Time Stamp       |
|----------|------|---|----------|---------------------|---------|------------------|
| L1       | 1    | ("4286377").pn.   | USPAT    | OR                  | OFF     | 2004/12/09 13:22 |
| L2       | 14   | ("3719525" "4626941" "5692832"<br>"5049410" "5331487" "5396383"<br>"5436776" "5820945" "5825591"<br>"6356405" "6417981" "6493183"<br>"6532125" "6775103").pn.   | USPAT    | OR                  | OFF     | 2004/12/09 13:58 |
| L3       | 2    | ("20020135922" "20030067711")   | US-PGPUB | OR                  | OFF     | 2004/12/09 13:58 |
| L4       | 21   | ("3180944" "3276003" "3632900" "3706861" "3732552" "3863124" "4605977" "4669011" "4814908" "4843502" "4853810" "5021906" "5034828" "5111348" "5255135" "5256573" "5282190" "5307224" "5313352" "5341256" "5764432"). pn.            | USPAT    | OR                  | OFF     | 2004/12/09 13:58 |
| L5       | 28   | ((heat\$3) or (heat\$3 adj (element<br>or device or apparatus))) near10<br>(transducer or head or actuator)<br>same (control\$4) same (optimiz\$5)<br>same (temperature or<br>characteristic or parameter)                          | US-PGPUB | OR                  | ON      | 2004/12/09 14:10 |
| L6       | 1    | ((heat\$3) or (heat\$3 adj (element<br>or device or apparatus))) near10<br>(transducer or head or actuator)<br>same (control\$4) same (optimiz\$5)<br>same (temperature or<br>characteristic or parameter)                          | EPO      | OR                  | ON      | 2004/12/09 14:12 |
| L7       | , 12 | ((heat\$3) or (heat\$3 adj (element<br>or device or apparatus))) near10<br>(transducer or head or actuator)<br>same (control\$4) same (optimiz\$5)<br>same (temperature or<br>characteristic or parameter)                          | JPO      | OR                  | ON      | 2004/12/09 14:12 |
| L8       | 3    | ((heat\$3) or (heat\$3 adj (element<br>or device or apparatus))) near10<br>(transducer or head or actuator)<br>same (control\$4) same (optimiz\$5)<br>same (temperature or<br>characteristic or parameter)                          | DERWENT  | OR                  | ON      | 2004/12/09 14:12 |
| L9       | 0    | ((heat\$3) or (heat\$3 adj (element<br>or device or apparatus))) near10<br>(transducer or head or actuator)<br>same (control\$4) same (optimiz\$5)<br>same (temperature or<br>characteristic or parameter)                          | IBM_TDB  | OR                  | ON      | 2004/12/09 14:10 |
| L10      | 1    | (intermittent\$3 or alternat\$3 or periodic\$5 or recurr\$3 or cyclic\$4 or sporadic\$5) near5 (heat\$3) near5 (element or device or apparatus) near5 (head or transducer) near5 (control\$4 or regime or optimiz\$3) near5 heat\$3 | US-PGPUB | OR                  | ON      | 2004/12/09 14:11 |

| L11 | 2 | (intermittent\$3 or alternat\$3 or periodic\$5 or recurr\$3 or cyclic\$4 or sporadic\$5) near5 (heat\$3) near5 (element or device or apparatus) near5 (head or transducer) near5 (control\$4 or regime or optimiz\$3) near5 heat\$3 | EPO     | OR . | ON | 2004/12/09 14:12 |
|-----|---|---|---------|------|----|------------------|
| L12 | 0 | (intermittent\$3 or alternat\$3 or periodic\$5 or recurr\$3 or cyclic\$4 or sporadic\$5) near5 (heat\$3) near5 (element or device or apparatus) near5 (head or transducer) near5 (control\$4 or regime or optimiz\$3) near5 heat\$3 | JPO     | OR   | ON | 2004/12/09 14:11 |
| L13 |   | (intermittent\$3 or alternat\$3 or periodic\$5 or recurr\$3 or cyclic\$4 or sporadic\$5) near5 (heat\$3) near5 (element or device or apparatus) near5 (head or transducer) near5 (control\$4 or regime or optimiz\$3) near5 heat\$3 | DERWENT | OR   | ON | 2004/12/09 14:11 |
| L14 | 0 | (intermittent\$3 or alternat\$3 or periodic\$5 or recurr\$3 or cyclic\$4 or sporadic\$5) near5 (heat\$3) near5 (element or device or apparatus) near5 (head or transducer) near5 (control\$4 or regime or optimiz\$3) near5 heat\$3 | IBM_TDB | OR   | ON | 2004/12/09 14:11 |

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| Text Search   | If you want to conduct a Number Search, please click on the button to the right. | Search     |  |  |  |  |  |
| Applicant,Titl  | e of invention, Abstract — e.g. computer semiconductor                           |            |  |  |  |  |  |
| If you use the AND/OR operation, please leave a SPACE between keywords.  One letter word or Stopwords are not searchable. |  |            |  |  |  |  |  |
| heater  | AND  | ) <b>-</b> |  |  |  |  |  |
|   | AND  |            |  |  |  |  |  |
| transducer  | OR   |            |  |  |  |  |  |
|   | AND  |            |  |  |  |  |  |
| head  | AND  | ) <b>•</b> |  |  |  |  |  |
|   | AND  |            |  |  |  |  |  |
| Date of public  | cation of application — e.g.19980401 - 19980405                                  |            |  |  |  |  |  |
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|   | AND  | · .        |  |  |  |  |  |
| <b>IPC</b> — e.g. D01B  | 7/04 A01C11/02   |            |  |  |  |  |  |
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| Applicant, Title of invention, Abstract  | — e.g. computer semiconductor                    |  |  |  |  |  |  |
| If you use the AND/OR operation, please leave a SPACE between keywords.  One letter word or Stopwords are not searchable.  |  |  |  |  |  |  |  |
| heater   | AND 🕶  |  |  |  |  |  |  |
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| prior  | OR ▼   |  |  |  |  |  |  |
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| Applicant,Title   | of invention,Abs         | stract — e.ç        | g. computer semico                       | onductor   |  |  |  |
| If you use the AND/OR operation, please leave a SPACE between keywords.  One letter word or Stopwords are not searchable. |                          |                     |  |  |  |  |  |
| heating   |                          |                     |  | AND <b>▼</b>   |  |  |  |
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| Date of publica   | tion of application      | <b>on</b> — e.g.199 | 980401 - 19980405                        | 5  |  |  |  |
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